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OBSTRUCTIVE SLEEP APNEA AND ATRIAL FIBRILLATION: FINDINGS FROM ORBIT-AF

Oral Contributions
Ballroom A
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Session Title: Joint Session of The Heart Rhythm Society and the American College of Cardiology: Year in Review
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Background: Obstructive sleep apnea (OSA) has been shown to be associated with risk of developing atrial fibrillation (AF), however, impact of OSA on outcomes in patients with AF in clinical practice is not well described.

Methods: The Outcomes Registry for Better Informed Treatment of Atrial Fibrillation (ORBIT-AF) is a contemporary all-comer US-based ambulatory AF registry. The prevalence of clinician defined OSA at baseline and its association with 1-year outcomes was assessed.

Results: Of 10,132 patients with AF, 18% had OSA. OSA patients were younger (69 [62-77] vs. 76 [68-82] yrs), more often male (69 vs. 55%), had higher BMI (34 [29-40] vs. 28 [25-32] kg/m2) and more comorbidity (heart failure [40 vs. 31%], hypertension [87 vs. 82%], diabetes [42 vs. 27%]) than their counterparts. They were more symptomatic (21 vs. 15% ≥severe symptoms) and more likely to be on rhythm control (35 vs. 31%). Oral anticoagulation therapy was used more in patients with OSA (79 vs. 75%), despite similar CHADS2-scores. P<0.01 for all comparisons. In adjusted analyses, patients with OSA had higher risks of hospitalization and major bleeding. Risk of death, the composite of CV death, myocardial infarction and stroke/TIA and AF progression were similar in both groups (Table).

Conclusion: Nearly one in five AF patients has documented OSA. These patients have worse functional status and higher risks of hospitalization and major bleeding, but similar mortality, AF progression rates and major adverse CV events as patients without OSA.

Outcome	OSA	No OSA	Adjusted HR (95% CI)	P
	number of events (events/100 patients-years)	number of events (events/100 patients-years)		
All-cause Death	75 (4.4)	355 (4.7)	0.98 (0.75-1.28)	0.88
1st Hospitalization (All-cause)	641 (51)	2322 (40)	1.15 (1.05-1.26)	0.0028
CV death, myocardial infarction and stroke/ TIA	60 (3.8)	284 (4.1)	0.99 (0.74-1.33)	0.94
Major bleeding	85 (5.5)	273 (4.0)	1.33 (1.03-1.72)	0.0271
Progression of AF type	181	817	0.96 (0.79-1.16)	0.65
Adjusted hazard ratios (HR) are calculated using Cox frailty models for all outcomes except the association between OSA and progression of AF, where logistic regression was used to calculate the associated odds ratio (OR).				